

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for performing a handover where a telecommunications channel used by a connection between a mobile station and a mobile services switching centre is changed in a mobile communications system where the telecommunications channel consists of a radio channel connecting the mobile station and a base station and of a channel connecting the base station and the mobile services switching centre, wherein the method comprises
  - selecting a new radio channel for the connection in question;
  - checking whether the handover is an internal handover of the base station controller where the base station employing the new radio channel and the base station employing the old radio channel are controlled by one and the same base station controller;
  - checking whether a predetermined trigger condition is met, said condition being met if either the speech coding method or the data transfer rate changes, or if ~~they~~ both the speech coding method and data transfer rate change at the same time, in connection with the handover; and
  - directing a switching function located in the mobile services switching centre to perform the handover, provided that the checks show that the handover is an internal handover of the base station controller where the trigger condition is met, or alternatively directing a switching function of the base station controller to perform the handover in question, provided that the checks show that the handover is an internal handover of the base station controller where the trigger condition is not met.
2. (Cancelled)
3. (Previously Presented) A method according to claim 1, wherein the process where the switching function of the mobile services switching centre or the base station controller is directed to perform the handover comprises the following:

a first step where the switching function starts to branch telecommunications signals sent by the mobile services switching centre in the downlink direction to the mobile station such that the signals in question are supplied from the switching function further to both the base station employing the old radio channel and to the base station employing the new radio channel;

a second step where the switching function interrupts the supply of telecommunications signals transmitted from the base station employing the old radio channel in the uplink direction and starts the to supply in the uplink direction telecommunications signals received from the mobile station by the base station employing the new radio channel; and

a third step where the switching function interrupts the supply of telecommunications signals, sent to the mobile station by the mobile services switching centre, in the downlink direction to the base station employing the old radio channel.

4. (Previously Presented) A method according to claim 3, wherein the first step is entered when a radio channel has been activated for the connection in question at the base station employing the new radio channel, the second step is entered when the base station employing the new radio channel detects that the mobile station has tuned to the new radio channel; and the third step is entered when the mobile station confirms that it has started to use the new radio channel.

5. (Previously Presented) A method according to claim 1, wherein the process for directing the switching function of the mobile services switching centre to perform the handover comprises the following:

a first step where the switching function starts to branch telecommunications signals to be sent in the downlink direction to the mobile station such that the signals are supplied from the switching function further to both the base station that employs the old radio channel and the base station employing the new radio channel, and to sum the telecommunications signals transmitted in the uplink direction by the base station employing the old radio channel and the base station employing the new radio channel, and to forward the summed signals; and

a second step where the switching function interrupts the supply of signals in both the uplink and downlink directions between the mobile services switching centre and the base station employing the old radio channel.

6. (Currently Amended) A mobile communications system comprising
- a mobile services switching centre;
  - a mobile station having a connection to the mobile services switching centre over a first telecommunications channel, and
- control means for directing a handover to replace the first telecommunications channel used for the connection between the mobile station and the mobile services switching centre with a second telecommunications channel,
- wherein the system further comprises
- comparison means comparing the speech coding method and the data transfer rate used on the first telecommunications channel with one or more speech coding methods and data transfer rates available on the second telecommunications channel in order to find out whether a predetermined trigger condition is met, said condition being met if the speech coding method used on the first telecommunications channel is not available on the second telecommunications channel and/or if the data transfer rate of the second telecommunications channel is different from the data transfer rate of the first telecommunications channel;
  - checking means checking whether the handover is an internal handover of a base station controller where the base station transmitting the first telecommunications channel is controlled by the same base station controller as the base station transmitting the second telecommunications channel; ~~and that wherein~~
- the control means direct the switching function of the mobile service switching centre to perform the handover, provided that the comparison means and the checking means show that the handover is an internal handover of the base station controller where the trigger condition is met or alternatively the control means direct the switching function of the base station controller to perform the handover, provided that the comparison means and the checking means show that the handover is an internal handover of the base station controller where the trigger condition is not met.

7. (Cancelled)

8. (Currently Amended) A mobile communication system according to claim 6, wherein the switching functions of the base station controller and the mobile services switching centre can be directed at least to

a first state where the switching function branches telecommunications signals to be sent to the mobile station in the downlink direction to the base station transmitting the first telecommunications channel and the base station transmitting the second telecommunications channel and where the switching function supplies only signals received from the mobile station by the base station transmitting the first telecommunications channel in the uplink direction to the mobile services switching centre;

a second state where the switching function branches telecommunications signals to be sent to the mobile station in the downlink direction to the base station transmitting the first telecommunications channel and the base station transmitting the second telecommunications channel and where the switching function supplies only signals received from the mobile station by the base station transmitting the second telecommunications channel in the uplink direction to the mobile services switching centre; and

a third state where the switching function supplies telecommunications signals to be sent to the mobile station in the downlink direction only to the base station transmitting the second telecommunications channel and where the switching function supplies only signals received from the mobile station by the base station transmitting the second telecommunications channel in the uplink direction to the mobile services switching centre; [[and]]

wherein [[that]] the control means direct the switching function to perform the handover in such a way that the switching function goes through the three states.

9. (Previously Presented) A mobile communications system according to claim 6, wherein the switching function of the mobile services switching centre can be directed at least to

a first state where the switching function branches telecommunications signals to be sent to the mobile station in the downlink direction so that the signals are supplied from the switching function further to both the base station employing the first telecommunications channel and the base station employing the second telecommunications channel, and where the switching function sums in the uplink direction the signals received from the mobile station by the base station transmitting the first telecommunications channel and the signals

received from the mobile station by the base station transmitting the second telecommunications channel and forwards the summed signals; and

a second state where the switching function supplies telecommunications signals to be sent to the mobile station in the downlink direction only to the base station transmitting the second telecommunications channel and where the switching function supplies only signals received from the mobile station by the base station transmitting the second telecommunications channel further in the uplink direction.

10. (Previously Presented) A mobile communications system according to claim 6, wherein said base station transmitting the first telecommunications channel and said base station transmitting the second telecommunications channel are one and the same base station.

11. (Previously Presented) A mobile communications system according to claim 6, wherein said base station transmitting the first telecommunications channel and said base station transmitting the second telecommunications channel are different base stations.

12. (Previously Presented) A mobile communications system according to claim 6, wherein the mobile communication system is a digital mobile communication system in which the mobile station and the mobile services switching centre employ different speech coding methods and that the first and the second telecommunications channels are provided with speech processing units which perform the coding and decoding operations needed for supplying speech signals between the mobile station and the mobile services switching centre.

13. (Currently Amended) A base station controller comprising  
control means for directing a handover to replace a first telecommunications channel used for a connection between a mobile station and a mobile services switching centre with a second telecommunications channel, wherein the base station controller further comprises  
comparison means for comparing the speech coding method and the data transfer rate used by the mobile station on the first telecommunications channel with one or more speech coding methods available on the second telecommunications channel and with the data transfer rate available on the second telecommunications channel in order to find out whether

a predetermined trigger condition is met, said condition being met if the speech coding method used on the first telecommunications channel is not available on the second telecommunications channel and/or if the data transfer rate of the second telecommunications channel is different from that used on the first telecommunications channel;

checking means checking whether the handover in question is an internal handover of a base station controller where the base station transmitting the first telecommunications channel and the base station transmitting the second telecommunications channel are controlled by the base station controller in question; wherein ~~and that~~

the control means direct the switching function of the mobile services switching centre to perform the handover, provided that the comparison means and the checking means show that the handover is an internal handover of the base station controller and that the trigger condition is met, or alternatively

the control means direct the switching function of the base station controller to perform the handover, provided that the comparison means and the checking means show that the handover is an internal handover of the base station controller where the trigger condition is not met.